

Appl. No. 09/380,337
Supplemental Amdt. dated August 29, 2007

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) An isolated *MEN1* gene, wherein said *MEN1* gene encodes a protein having the amino acid sequence of SEQ ID NO:2.
2. (cancelled)
3. (currently amended) ~~An~~ The isolated *MEN1* gene of claim 1, nucleic acid comprising wherein the *MEN1* gene comprises SEQ ID NO:1.
4. (previously presented) The isolated *MEN1* gene of claim 1, wherein the *MEN1* gene comprises SEQ ID NO:3.
- 5.-23. (cancelled)
24. (currently amended) A kit for detecting in a test sample the presence or absence of a mutation in a *MEN1* gene having the sequence of SEQ ID NO:3, the kit comprising:
 - a) ~~a container holding an~~ oligonucleotide sequence that ~~binds~~ hybridizes to a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3; and
 - b) ~~a container holding a~~ reagent for detecting the formation of a duplex between the gene and the oligonucleotide ~~first nucleotide~~ sequence.
25. (cancelled)
26. (currently amended) The kit of claim 24, further comprising amplification primer pairs specifically binding hybridizing to a human *MEN1* gene, SEQ ID NO:3 ~~having the sequence of SEQ ID NO:3.~~

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27.-29. (cancelled)

30. (currently amended) An ~~transfected~~ isolated cell ~~in vitro~~, wherein the cell comprises a comprising the nucleic acid of claim 1.

31. (cancelled)

32. (currently amended) The ~~transfected~~ isolated cell of claim 30, wherein the nucleic acid comprises a ~~nucleic acid as set forth in SEQ ID NO:1 or SEQ ID NO:3.~~

33. (currently amended) The isolated ~~transfected~~ cell of claim 30, wherein the cell is a human cell.

34.-35. (cancelled)

36. (currently amended) An expression cassette comprising a the nucleic acid of claim 1, wherein the nucleic acid is operably linked to a promoter.

37. (original) The expression cassette of claim 36, further comprising an expression vector.

38.-42. (cancelled)

43. (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

a) contacting the nucleic acid sample with an oligonucleotide probe to the target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3; and,

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b) detecting the formation of a duplex between the ~~gene~~ target region and the oligonucleotide; wherein a change in the formation of the duplex in comparison to formation of a control duplex comprising the oligonucleotide and the wildtype target region of SEQ ID NO:3 is indicative of the presence of the mutation.

44. (cancelled)

45. (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

incubating the nucleic acid sample in an amplification reaction comprising primers that amplify the target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3;
contacting the amplified product with an oligonucleotide probe to the amplified target region of SEQ ID NO:3; and,

detecting the formation of a duplex between the amplified product and the oligonucleotide probe; wherein a change in the formation of the duplex in comparison to formation of a control duplex comprising the oligonucleotide and the wildtype target region of SEQ ID NO:3 is indicative of the presence of the mutation.

46. (cancelled)

47. (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

incubating the nucleic acid sample from the individual in an amplification reaction comprising primers that amplify a target region of SEQ ID NO:3; and
determining the sequence of the target region.

48. (new) An isolated cell comprising the nucleic acid of claim 3.

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49. (new) The isolated cell of claim 48, wherein the cell is a human cell.
50. (new) An expression cassette comprising the nucleic acid of claim 3, wherein the nucleic acid is operably linked to a promoter.
51. (new) The expression cassette of claim 50, further comprising an expression vector.